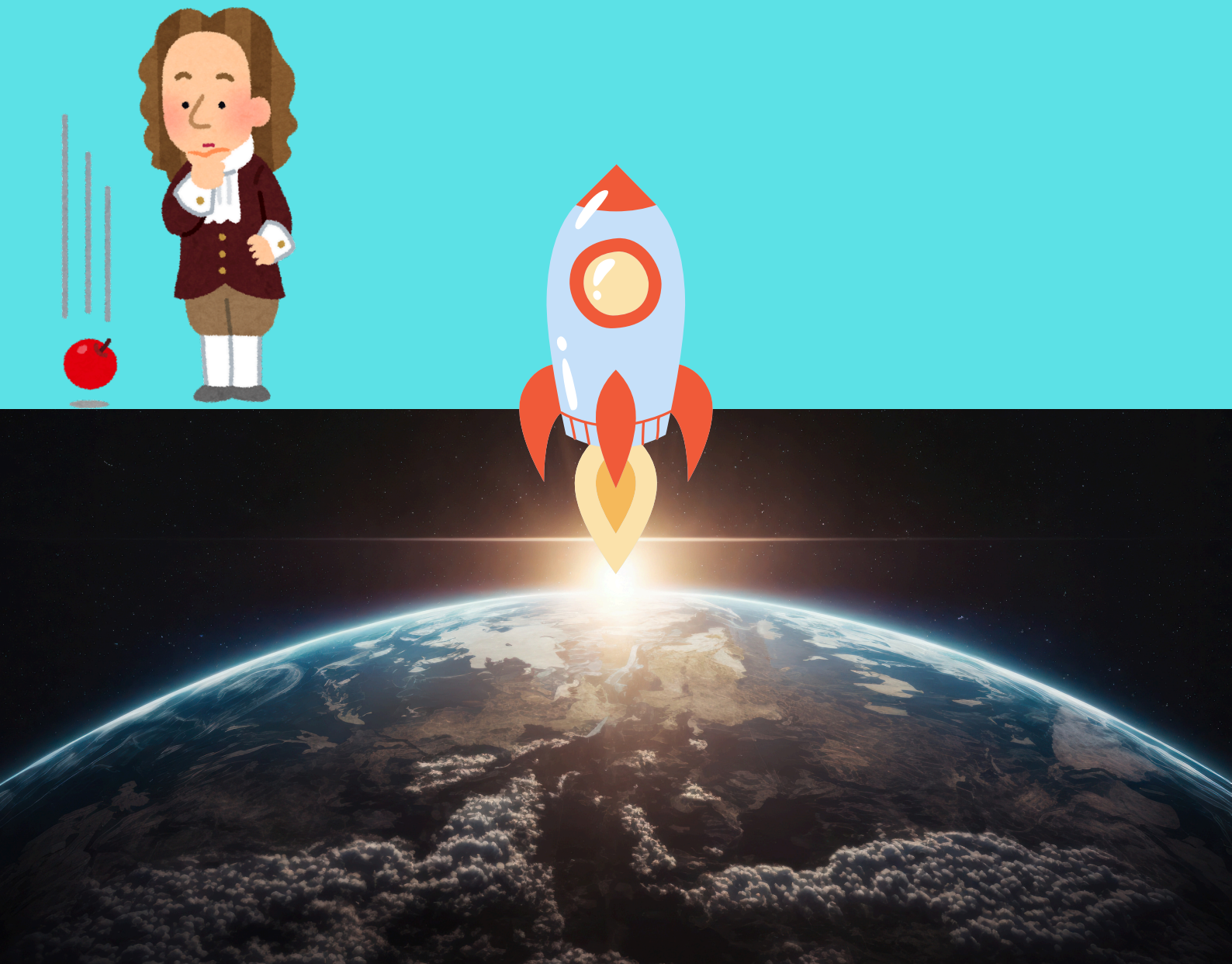
Joyful Maths With Ruth

Maths In ~~Motion~~ SPACE

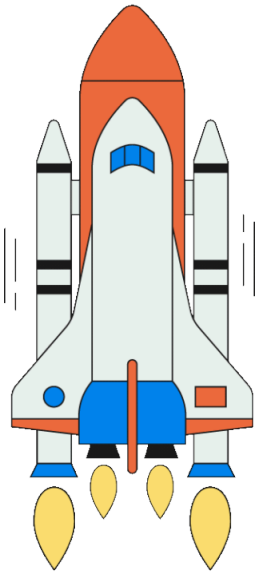
Workbook

Lesson 1: Gravity



Are you ready to blast off?

What are you going to need?



Why?

The BIG problem

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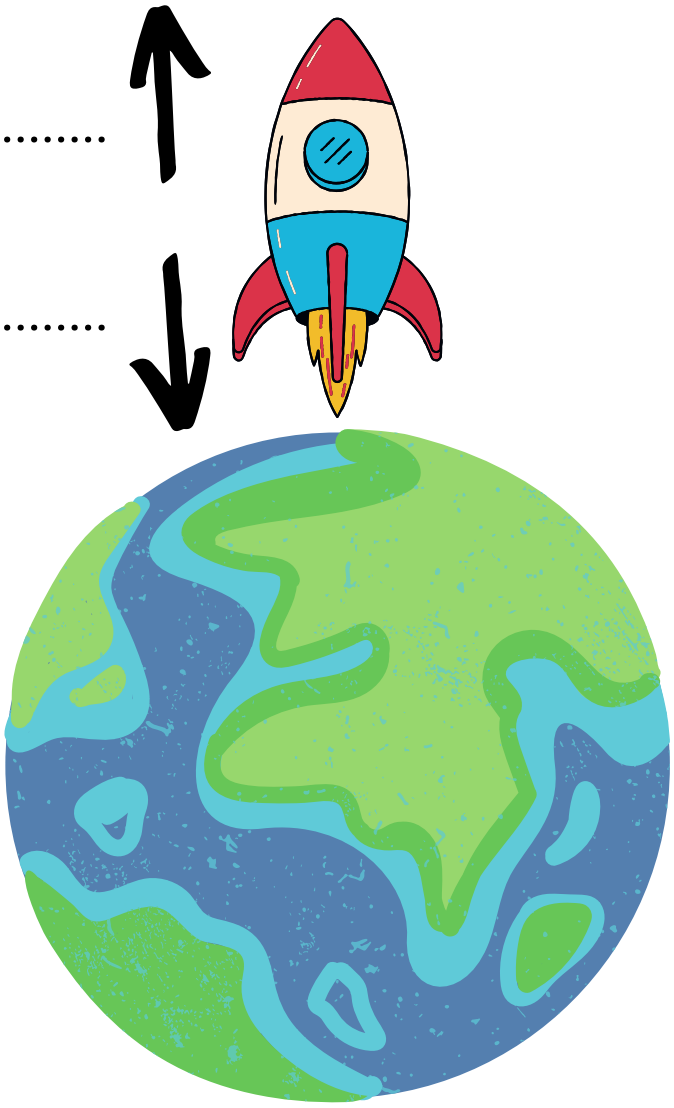
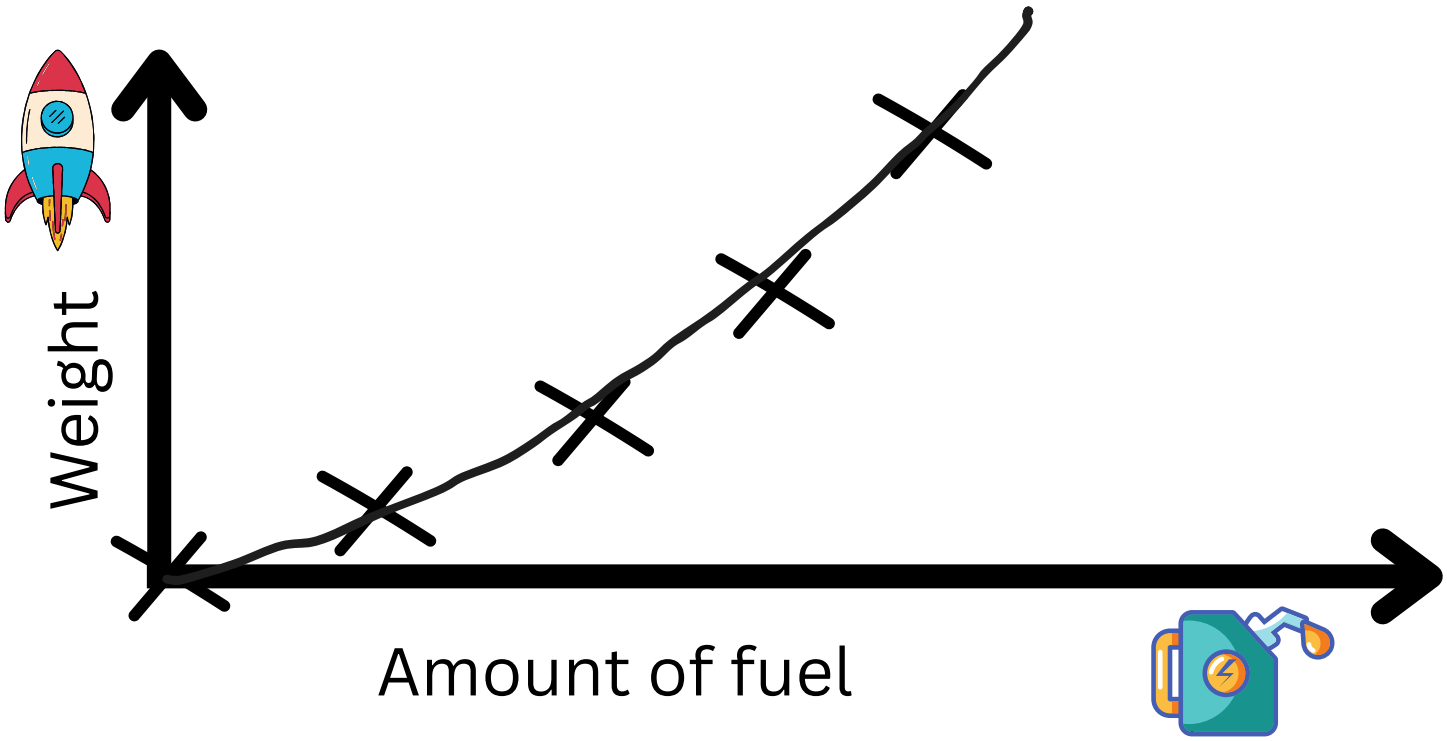
.....



What do you need to create Thrust?

Why is this a problem?

Exponential graph



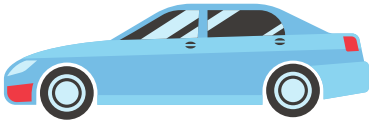
What happens when we increase the fuel?

What does that mean?

What type of graph does this create?

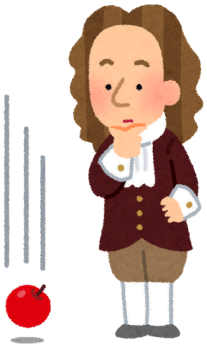
What is gravity?

Force?



Bend in space time?

Acceleration?



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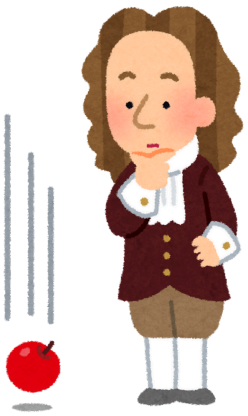
Acceleration



$g = 9.8\ m/s^2$

Show me 9.8
Draw it/ build it/ take a picture of it

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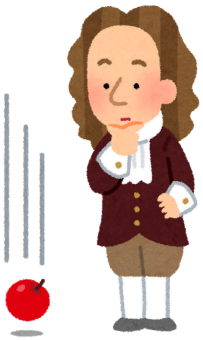
At home challenge:



Test the effect of gravity.

Get various objects of different sizes to test how quickly they fall to earth.

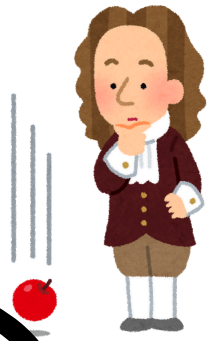
What do you predict will happen?

Why?

How will you make sure your test is **fair?** (Remember to only change 1 thing - the objects - keep everything else the same)

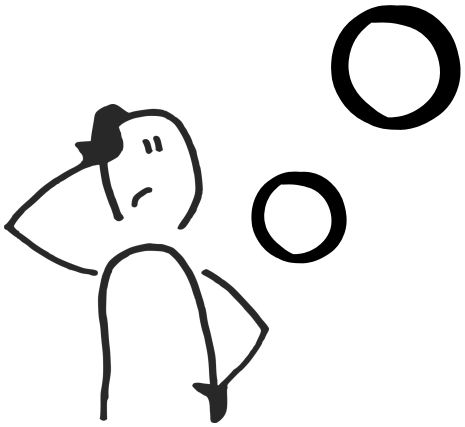
Record your results here:

At home challenge:



Do you think you would get the same results on the moon?

What about in space?



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Create your own Gravity Quiz:

Question 1

.....

.....

A

B

C

Question 2

.....

.....

A

B

C

Question 3

.....

.....

A

B

C

Create your own Gravity Quiz:

Question 4

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A

B

C

Question 5

.....

.....

A

B

C

Question 6

.....

.....

A

B

C